DOCUMENT RESUME

ED 131 076 SP 010 637

AUTHOR Glass, Lynn W.; Keith, Pat M.
TITLE Follow-Up Study of Selected Teacher Education Graduates from Iowa State University, the University of Iowa, and the University of Northern Iowa. Volume I, Issue I.
INSTITUTION Iowa State Univ. of Science and Technology, Ames. Research Inst. for Studies in Education.
PUB DATE Dec 75
NOTE 98p.
AVAILABLE FROM Research Institute for Studies in Education, College of Education, Iowa State University, Ames, Iowa 50011 (No price quoted)

EDRS PRICE MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS Career Change; Career Choice; Careers; *Education Majors; *Employment Opportunities; Followup Studies; Graduates; *Graduate Surveys; *Occupational Choice; *Schools of Education; Sex Role; *Teacher Education; Teachers Colleges
IDENTIFIERS Iowa

ABSTRACT

This study was designed to supply data on career patterns of teacher education graduates of three Iowa Regent's Universities. The research was aimed at answering the following questions: (1) What full-time occupations have been pursued by the graduates of one, five, and ten years ago? (2) What factors influenced acceptance of employment in nonacademic fields? (3) What skills and competencies obtained in the teacher education program were used to secure and function in employment in nonacademic fields? (4) What skills and competencies needed in their current occupation and related to the teacher education graduate program do graduates wish they had? and (5) What experiences in the teacher education program have been useful in preparing graduates for their personal and civic lives? Two instruments were developed to address these questions: a career profile card and a 69-item, follow-up questionnaire. (Both are appended.) Results show that: (1) the majority of the Iowa teacher education graduates currently reside in the state of Iowa or contiguous states; (2) teacher education as an undergraduate major is still a common choice for women; (3) over three-fourths of all the teacher education graduates studied are teaching or have taught full-time; (4) teacher education graduates are interested first in obtaining a teaching position, with nonacademic employment as a second choice; (5) sex role differences are evident in the reasons why teacher education graduates accept nonacademic employment; (6) the employment ambitions of teacher education graduates working in nonacademic occupations are relatively stable; and (7) teacher education graduates find the special abilities and aptitudes developed in their subject matter majors to be of prime importance in qualifiying for nonacademic professions. (MM)

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Published by

Research Institute for Studies in Education

College of Education, Iowa State University
Ames, Iowa 50011

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FOLLOW-UP STUDY
OF SELECTED TEACHER EDUCATION GRADUATES
FROM IOWA STATE UNIVERSITY,
THE UNIVERSITY OF IOWA, AND
THE UNIVERSITY OF NORTHERN IOWA

By

Lynn W. Glass and Pat M. Keith

Volume I, Issue I

Available from:
Research Institute for Studies in Education
College of Education
Iowa State University
Ames, Iowa 50011

December 1975

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STUDIES IN EDUCATION, 1975

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FOREWORD

The study of selected teacher education graduates in nonacademic occupations was a cooperative research project of the Iowa Regents Institutions. The Council of Deans of the Colleges of Education, in the wake of various national and local teacher supply and demand studies during the period 1972-74, was interested in the possible alternative occupations engaged by teacher education graduates, and the relevance of components of their professional preparation to non-academic occupational pursuits.

As a selective follow-up study the project was cooperatively planned and developed with faculty and staff of each of the three state universities under the aegis of the Research Institute for Studies in Education.

The Research Institute acknowledges with appreciation the work of the faculty and staff of the universities in the conceptualization of the project design and the development of the survey questionnaire. Special recognition is due Dr. Lynn Glass and Dr. Patricia Keith for the major roles they played throughout the project, especially in the development and implementation of the research plan, the computerization of the data, the statistical analysis, and in writing the research report.

William A. Hunter, Director
Research Institute for Studies
in Education

ACKNOWLEDGMENT

This study would not have been completed without the assistance, cooperation, and support of many individuals. The persons involved in the study from all three campuses are too numerous to mention without running the risk of overlooking someone. There are, however, three individuals who do deserve special acknowledgment. Deans Jones, Knutson, and Lagomarcino played a special role in the inception and design of the study. A special thank you goes to Dean Virgil Lagomarcino, who provided constant encouragement through his display of genuine interest in the project. Without the financial assistance of the Research Institute for Studies in Education, time would not have been available during the summer for the collection, recording and organization of data.

Pat M. Keith
Lynn W. Glass
December 23, 1975

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Chapter I - RATIONALE

For many years teacher education graduates have accepted employment in non-teaching fields. Even during the years when the demand for teachers exceeded the supply, significant numbers of teacher education graduates entered non-teaching fields of employment. Today the percentage of teacher education graduates entering non-teaching areas of employment may be much higher than it formerly was. This fact has not disturbed all teacher educators because the teacher preparation program through the years has been conceived by many as a program focused on the development of a broad range of competencies and skills with application for career development in numerous areas with a wide spectrum of employment opportunities.

Recently several prominent teacher education programs have announced a renewed interest in developing programs for individuals not interested in academic employment (1). Programs at Vermont, Northwestern, and Michigan Universities and Peabody College for Teachers are designed to provide each student with the flexibility to move from one human service setting to another in the school or in the community. These programs, like dozens of other similar programs, are well conceived, thought out, and implemented. The programs are evaluated as successful by both the designers and participants. At the present time, however, there are relatively little data available pertaining to why teacher education graduates accept non-teaching employment. Further, adequate data are

not available from teacher education graduates employed in nonacademic positions that would aid the college curriculum maker in developing goals, objectives, and instructional activities for the teacher education curriculum. Sufficient information to guide and direct the teacher educator in counseling teacher education students who wish to seek nonacademic employment is also lacking.

The Historical Context

About 1970, an era of annual shortages of qualified teachers for most assignment areas came to an end, and an era of an abundant supply of qualified teachers for most assignment areas began. Several conditions contributed to the significant change in relative status of teacher supply and demand between 1969 and 1971 (2):

1. The size of college graduating classes increased significantly between 1968 and 1971, reflecting the growth in size of the population, age 20-22 at that time.

2. The size of college graduation classes increased steadily through the 1950-1970 era, reflecting the annual growth in proportion of college-age population being enrolled in higher education. (The percent of the population age 18-19 being enrolled in school or college increased from 29.4 percent in 1950 to 50.4 percent in 1968.)

3. Significant numbers of school systems were operating under severe financial constraints in 1971, which prevented them from taking advantage of the increasingly adequate supply of qualified teachers to expand and raise the quality of school programs and services.

Reports of the above nature tend to be interpreted by the layman to mean that a teacher surplus exists since today nearly every classroom has a teacher and there are teachers either unemployed or working in nonacademic occupations. These same reports have been interpreted by

numerous teacher educators to mean that the ratio of one teacher to 25 or 30 students in many cases is not adequate. In some instances, one teacher could be effective with more than 25 to 30 students, but in a great many other cases the number of students per teacher should be much less than 25 to 30.

Most of the supply and demand studies do not deal directly with the fact that not all persons prepared to teach seek employment in teaching. Generally, it is pointed out that many graduates elect to continue their schooling, postpone entry into the labor market, or enter other fields of employment. The implication of these studies is that the graduate considered his/her primary objective to be teaching, and the other choices were secondary.

Recently, information indicates that this may not be so. Palmer (3) summarized several mid-western studies in which it is apparent that teacher education is construed by many students as one of the general education options available to them. A study by Glass and Keith (4) corroborates the work of Palmer and provides evidence that for teacher education graduates there are as many opportunities for employment as in any other broad category of majors.

To date, relatively little research has been reported on the career patterns of teachers. The research that has been conducted has been concerned primarily with the career patterns of those persons remaining in the teaching profession. Usually this research has focused upon the horizontal and vertical mobility of teachers, supply and demand characteristics, and teacher survival rates. Charters (5, p. 753) summarized the research when he wrote:

> The career patterns of American Teachers are almost exclusively matters of common knowledge rather than of accurate, statistical description.

Havighurst and Neugarten (6, p. 437) studied mobility of teachers from one teaching position to another teaching position. They concluded that with added academic training and added years of experience, teachers tend to go from an orbit of small towns to small cities to large cities; such moves usually are accompanied by increased salary, increased security, or increased prestige in the profession.

Few data are available on the extent to which reasons for leaving the profession parallel those which foster mobility within the field. Further data are needed to explore the career opportunities for teacher education graduates in nonacademic positions. The present study examines the nonacademic career patterns of teacher education graduates, the interface between work and training, factors in job selection, employment aspirations, and suggestions for educational programs. Chapter II describes the methods and procedures used in the research. Chapter III contains a discussion of the findings, and Chapter IV provides a summary of the findings.

Chapter II - METHOD AND PROCEDURES

The study was designed to supply data on a variety of questions on career patterns of graduates posed by persons interested in the teacher education programs at the three Iowa Regents' Universities. The central focus of the research was aimed at answering the following questions:

1. What full-time occupations have been pursued by teacher education graduates of one, five, and ten years ago?

In addition to the above question, for those teacher education graduates currently employed full-time in a nonacademic position:

2. What factors influenced acceptance of employment in nonacademic fields?
3. What skills and competencies obtained in the teacher education program were used to secure and to function in employment in nonacademic fields?
4. What skills and competencies needed in their current occupation and related to the teacher education program do graduates wish they had?
5. What experiences in the teacher education program have been useful in preparing graduates for their personal and civic lives?

Development of Instruments

Two instruments to address these questions were developed cooperatively by members of the College of Education faculties at the three Iowa Regents' Institutions. The first instrument, referred to in later portions of this report as a career profile card, was designed to elicit occupational positions, dates of employment, and employers' names from all teacher education graduates from each of three study years. A second instrument was developed as a follow-up for those career profile card respondents who indicated they currently were employed full-time in a nonacademic position. This instrument contained a total of 69 questions grouped under the following ten general categories:

1. Seeking first position after graduation.
2. Seeking current position.
3. Factors influencing acceptance of current position.
4. Experiences needed to qualify for current position.
5. Teacher education experiences useful for current position.
6. Importance of teacher education experiences in personal and civic life.
7. Teacher education skills and competencies essential in current position.
8. Future employment ambitions.
9. Strengths and weaknesses of teacher education program.
10. Gross yearly income from full-time nonacademic position.

The original instrument was modified based on the opinions of a panel of judges and the results obtained from administering the instrument to 50 Iowa State University graduate students. Copies of the career profile card and the questionnaire are found, respectively, in Appendices A and B.

Sample

All persons who received a baccalaureate degree in teacher education during the time interval September 1, 1964, to August 31, 1965; September 1, 1969, to August 31, 1970; or September 1, 1973, to August 31, 1974, from Iowa State University, the University of Iowa, or the University of Northern Iowa were selected for the study population. Each university was responsible for identifying the study population from its university. Although the specifics of identification may have varied between the universities, the general procedure was to define and to identify the study population in the College of Education, and then to generate, through the Alumni Office records, a current mailing label for each member of the study population.

Sample Size and Follow-up of Non-respondents

A total of 5918 names complete with addresses were received from the three Alumni Offices. A career profile card and cover letter, bearing the letterhead and signed by the Dean of the graduate's own college, were mailed to each of the 5918 members of the study population (Appendix C). Approximately 30 days later a reminder letter and career profile card were mailed to the non-respondents (Appendix D).

When letters returned by the United States Postal Service were eliminated as potential members of the study population, a return rate of 75.4 percent was achieved (Table 1). Respondents who indicated they currently were employed full-time in a nonacademic position were mailed a cover letter and questionnaire. Both the cover letter and questionnaire were personalized to bear the name of the graduate's alma mater (Appendix E). Approximately 30 days later, a reminder letter and second questionnaire were mailed to non-respondents (Appendix F).

Table 1. Number and Percent of Study Population Responding to Career Profile Card by University.

	University			
	ISU	UI	UNI	Total
Initial population	1,674	1,277	2,967	5,918
No return or incomplete card	381	348	693	1,422
Returned by U.S. Postal Service	19	58	65	142
Complete data	1,274	871	2,209	4,354
Percent return (incorrect addresses eliminated)	77.0	71.5	76.1	75.4

Chapter III - RESULTS

This chapter is divided into nine sections. The first and third sections describe the original study population (section one) and the smaller nonacademic subpopulation (section three). The remaining sections provide data useful in addressing the questions raised in Chapter II.

Section 1 - Description of the Original Population

For the three study years in question, over one-half of the population graduated from the University of Northern Iowa, 30 percent from Iowa State University, and 20 percent from the University of Iowa. The largest study year was the period from September 1, 1969, to August 31, 1970, with this period contributing approximately 42 percent of the total sample. This period was followed by the third (1973-1974) and first (1964-1965) study years with 36 and 22 percent, respectively (Table 2).

Over 70 percent of the parent population of graduates currently reside in Iowa. When each university is examined separately, the percentage of graduates currently residing in Iowa varies from 58.8 percent at the University of Iowa to 77.8 percent at the University of Northern Iowa. Illinois and Minnesota are the second and third most popular states for current place of residence of graduates from all three universities (Table 3).

Table 2. Distribution of Study Subjects by University and Year.

Study Year	Number of Study Subjects				
	ISU	UI	UNI	Total	(percent)
1964 - 1965	246	143	547	936	(21.5)
1969 - 1970	531	423	870	1,824	(42.0)
1973 - 1974	494	298	792	1,584	(36.5)
Total (percent of total)	1,271(29.3)	864(20.0)	2,209(50.7)	4,344	(100.0)

Table 3. Distribution of Study Subjects by University and Current State of Residence.

Current State of Residence	Number	Percent University Study Population			Percent of Total
		ISU (n = 1,214)	UI (n = 871)	UNI (n = 2,209)	
Iowa	3,052	64.4	58.8	77.8	70.1
Illinois	236	5.4	11.1	3.2	5.4
Minnesota	154	4.0	3.9	3.1	3.5
All other states	912	26.2	26.2	15.9	21.0
Total	4,354	100.0	100.0	100.0	100.0

Approximately a 3 to 1 ratio of women to men exists for all three study years, with the percent of women graduates gradually increasing in each of the three years (Table 4).

All categories of certification as defined by the Iowa Department of Public Instruction, except office education, are represented

Table 4. Distribution of Study Subjects by Sex and Year.

Study Year	Number of Study Subjects		
	Male	Female	Total
1964 - 1965	271	665	936
1969 - 1970	487	1,336	1,824
1973 - 1974	412	1,172	1,584
Total (percent)	1,170 (27.0)	3,173 (73.0)	4,344 (100.0)

in the study population, with approximately one-third of the sample coming from the certification area of elementary education. The distribution of the sample in the other teaching areas ranges from 7.8 percent in English to 0.1 percent in driver education and safety and in guidance and counseling (Table 5).

Section 2 - Career Patterns

The data in this section are organized into two parts. The first part is concerned with the career profile of all teacher education graduates in the study, and the second part is an analysis of the current occupations held by the total population of graduates.

Career Profiles

Career profiles were developed based upon the full-time jobs each graduate has held since receiving a teaching certificate. The classification system was based upon the current employment status of the graduate utilizing the following major divisions: current full-time academic

Table 5. Distribution of Subjects by Teaching Major and Year.

Teaching Major	Number of Study Subjects Study Year 1964-1965	1969-1970	1973-1974	Total	(percent)
Agriculture	15	44	26	85	(2.0)
Art	39	62	74	175	(4.0)
Business Education	39	49	39	127	(2.9)
Distributive Education	4	14	4	22	(0.5)
Driver Education and Safety	0	2	3	5	(0.1)
Elementary Education	245	535	522	1,302	(29.9)
English	72	163	105	340	(7.8)
Guidance and Counseling	2	3	0	5	(0.1)
Home Economics	69	130	118	317	(7.3)
Journalism	0	6	2	8	(0.2)
Foreign Language	32	75	46	153	(3.5)
Mathematics	71	88	76	235	(5.4)
Music	16	40	58	114	(2.6)
Physical Education	61	116	132	309	(7.1)
Psychology	3	8	14	25	(0.6)
Natural Sciences	45	75	53	173	(4.0)
Social Studies	52	158	87	297	(6.9)
Special Education	7	35	46	88	(2.0)
Speech	32	36	33	101	(2.3)
Librarian/Media Specialist	10	36	5	51	(1.2)
Industrial Arts	21	49	57	127	(2.9)
Nursery-Kindergarten	48	5	21	74	(1.7)
Other	4	17	7	28	(0.6)
No major listed	49	78	56	183	(4.3)
Total	936	1,824	1,584	4,344	(100.0)

employment, current full-time nonacademic employment, and no current full-time employment outside the household. Each major division then was divided to indicate whether or not the graduate had held full-time positions in either academic or nonacademic fields. The classification system is as follows:

CAREER PROFILE CATEGORIZATION SYSTEM

A. Current Full-time Academic Employment
   1. Full-time employment has always been in an academic field.
   2. Full-time employment has included both academic and nonacademic fields.

B. Current Full-time Nonacademic Employment
   1. Full-time employment has always been in a nonacademic field.
   2. Full-time employment has included both nonacademic and academic fields.

C. No Current Full-time Employment Outside the Household
   1. Full-time employment has always been as a homemaker.
   2. No full-time employment since receiving a teaching certificate.
   3. Has held full-time academic employment.
   4. Has held full-time nonacademic employment.
   5. Has held both full-time academic and nonacademic employment.

Of the total study population, 75.8 percent of the study subjects currently are either teaching or have taught at some time in the past. Persons who have always taught, A1, and persons who have taught but currently are unemployed, C3, account for most of the people who are teaching or

have taught. Categories A2, B2, and C5 account for approximately 10 percent of the total (Table 6). When examined by individual study years, the percent within each year who have taught or currently are teaching ranges from 91.2 percent for the first study year to 81.1 percent for the second study year, to 61.3 percent for the most recent study year.

Table 6. Distribution of Study Subjects by Career Profile and Year.

	Number and Percent of Study Subjects							
	Study Year							
Career[a] Profile	1964-1965 Number	Percent	1969-1970 Number	Percent	1973-1974 Number	Percent	Total	Percent
A1	404	43.2	913	50.1	848	53.5	2,165	49.7
A2	23	2.5	73	4.0	73	4.6	169	3.9
B1	41	4.4	215	11.8	353	22.3	609	14.1
B2	86	9.2	147	8.1	17	1.1	250	5.7
C1	10	1.1	39	2.1	39	2.5	88	2.0
C2	12	1.3	49	2.7	183	11.6	244	5.6
C3	314	33.5	291	16.0	27	1.7	632	14.6
C4	17	1.8	43	2.4	36	2.3	96	2.2
C5	26	2.8	52	2.9	6	0.4	84	1.9
Total	933	100.0	1,822	100.0	1,582	100.0	4,337	100.0

[a]See p. 13 for a listing of category code items.

Four categories, B1, B2, C2, and C3, account for the wide range in percent of persons from a given graduating class currently employed in the teaching profession. Graduates from 10 years ago entered the teaching profession in large numbers (categories A1 + A2 + B2 + C3 + C5 = 91.2 percent); however, over the period of 10 years, the number of persons remaining in academic employment has fallen to 45.7 percent of the class currently being employed in an academic field. Employment outside the academic profession currently accounts for 9.2 percent of the class, and those homemaking or unemployed, who have previously held an academic position account for 33.5 percent of the class. In contrast to this, the most recent graduating class has a much higher percent of the class, 22.3 percent versus 4.4 percent, currently employed in nonacademic fields who have never entered the teaching profession. A major difference also exists in the unemployed category, with 11.6 percent of the most recent class having never held full-time employment since graduation.

When career profile data are examined by the sex variable, it appears that the patterns evident for teacher education graduates mirror those found in society at large (Table 7). A greater proportion of men than of women are employed full time, either in academic or nonacademic fields, and a greater percent of women are unemployed or serving as homemakers (Table 8).

Current Occupation

A modified version of the Dictionary of Occupational Trades was used to categorize the current occupations of all graduates into nine major divisions and 65 sub-categories. The divisions and sub-categories used for classification of occupations are included in Appendix G.

Table 7. Current Occupation of Graduates Expressed as a Percent of All Graduates for Each Study Year.

Occupation	Percent of Graduates by Study Year			Mean Percent of Graduates
	1964-1965 (n = 936)	1969-1970 (n = 1,824)	1973-1974 (n = 1,584)	
Education	45.3	53.6	57.4	53.1
Unemployed	24.9	14.1	11.0	15.3
Homemaker	15.0	9.9	3.2	8.5
Student	1.0	2.0	4.5	2.7
Secretarial	0.4	2.0	4.1	2.4
Misc. professional[a]	1.1	2.1	1.4	1.7
Merchandising	1.3	1.1	1.4	1.2
Sales	1.1	0.6	2.0	1.2
Misc. education[b]	1.0	1.2	1.1	1.1
All other categories[c]	7.9	12.2	13.9	12.8
Total	100.0	100.0	100.0	100.0

[a] Extension agencies, Social Services Department, etc.

[b] Nonacademic employers such as publishing houses, youth agencies, etc.

[c] Includes 56 occupations each accounting for one percent or less of the total.

Table 7 shows the distribution of graduates by year according to their current occupational status in the nine most common categories. The other 56 categories accounted for a total of 12.8 percent of the sample, and individually each accounts for one percent or less of the total.

Table 8. Distribution of Study Subjects by Career Profile and Sex.

Career Profile	Male Study Subjects		Female Study Subjects		Total
	Number	Percent	Number	Percent	
A1	640	29.5	1,526	70.5	2,166
A2	59	34.9	110	65.1	169
B1	252	41.0	362	58.9	614
B2	120	48.0	130	52.0	250
C1	1	1.1	87	98.9	88
C2	48	19.6	197	80.4	245
C3	31	4.9	603	95.1	634
C4	16	16.7	80	83.3	96
C5	7	8.3	77	91.7	84
Total	1,174	100.0	3,172	100.0	4,346

The percent of persons currently employed in nonacademic occupations ranges from 23.9 percent for the most recent study year to 20.4 percent and 13.8 percent for the second and first study years, respectively. The percent of graduates who are unemployed (homemaker, student, or unemployed) for the first study year, 40.9 percent, is more than double that for the most recent study year, 18.7 percent.

An analysis of current occupations by the sex variable reveals patterns very similar to those revealed in an analysis of career profiles by the sex variable (Table 9). The percentage of women in the unemployed, homemaker, and secretarial categories is much greater than the percentage of men. The unemployment rate for women (24.0 percent) is over twice as

Table 9. Current Occupation of Graduates Expressed as a Percent by Sex.

Occupation	Percent of Male Graduates (n = 1176)	Percent of Female Graduates (n = 3177)	Mean Percent
Education	59.0	50.9	53.1
Unemployed	11.5	19.3	15.3
Homemaker	0.3	4.7	8.5
Student	3.8	2.3	2.7
Secretarial	0.0	3.3	2.4
Misc. professional[a]	2.2	1.5	1.7
Merchandising	2.3	0.8	1.2
Sales	2.3	0.8	1.2
Misc. education[b]	1.0	1.2	1.1
All other categories[c]	17.6	15.2	12.8
TOTAL	100.0	100.0	100.0

[a]Extension agencies, Social Services Department, etc.

[b]Nonacademic employers such as publishing houses, youth agencies, etc.

[c]Includes 56 occupations.

great as it is for men (11.8 percent) in the first two of these categories, unemployed and homemaker. The combined percentage of men employed in the fields of sales and merchandising (4.6 percent) is nearly three times the percentage of women in these two fields (1.6 percent).

Section 3 - Description of Graduates Currently Employed in Nonacademic Occupations

Eight hundred and fifty nine (859) subjects were identified as currently being employed full time outside the household in a nonacademic occupation. This number represents 19.73 percent of all graduates answering the career profile questionnaire. From this subsample of 859 subjects, 542 usable questionnaires were returned, for a return rate of 63.10 percent.

Table 10 depicts the distribution of respondents by university and study year. The distribution in the subsample by university and study year is similar to the distribution in the original sample. The one notable exception is in the representation by university category. In the original sample over 50 percent (50.7 percent) of the subjects were from the University of Northern Iowa, and less than 30 percent (29.3 percent) were from Iowa State University. In the subsample, the University of Northern Iowa is represented by approximately 9.0 percent fewer subjects (50.7 percent compared to 41.7 percent), and Iowa State University is represented by approximately 8.3 percent more subjects (29.3 percent compared to 37.6 percent).

Two-thirds (66.4 percent) of the respondents currently employed in nonacademic positions reside in the state of Iowa, with Illinois (4.8 percent), Minnesota (4.2 percent), and California (3.5 percent) being the next three most popular states for current place of residence. Distribution by state and university is similar to the distribution noted earlier for the original sample (Table 11).

Table 10. Distribution of Study Subjects Currently Employed in Non-academic Positions by Year of Graduation and University Attended.

Study Year	Number of Study Subjects				
	ISU	UI	UNI	Total	(percent)
1964 - 1965	30	11	46	87	(16.1)
1969 - 1970	94	59	80	233	(43.0)
1973 - 1974	77	40	100	217	(40.0)
Total (percent of total)	201 (37.6)	110 (20.7)	226 (41.7)	537	(100.0)

Table 11. Distribution of Study Subjects Currently Employed in Non-academic Positions by University and Current State of Residence.

State of Current Residence	Number	Percent University Study Population			Percent of Total
		ISU	UI	UNI	
Iowa	360	64.2	59.8	71.7	66.4
Illinois	26	3.9	8.9	3.5	4.8
Minnesota	23	3.9	5.4	4.0	4.2
California	19	4.4	4.5	2.2	3.5
All other states	114	23.6	21.4	18.6	21.1
Total	542	100.0	100.0	100.0	100.0

There is a significant shift in sex distribution between the original sample and the subsample. In the original sample, a 3 to 1 ratio of women to men existed, whereas in the sample of respondents currently

employed in nonacademic occupations, the distribution is a 3 to 2 ratio of women to men (Table 12).

Table 12. Distribution of Study Subjects Currently Employed in Nonacademic Occupations by Sex and Year.

Study Year	Number of Study Subjects		
	Male	Female	Total
1964 - 1965	54	33	87
1969 - 1970	101	131	232
1973 - 1974	73	144	217
Total (percent)	228 (42.8)	308 (57.0)	536 (100.0)

Several changes occur in the distribution of study subjects by teaching major between the original sample and the sample of subjects currently employed in nonacademic positions (Table 13). The most obvious change is in the certification area of elementary education. Whereas 29.9 percent of the original sample was composed of persons majoring in elementary education, only 15.5 percent of the subsample respondents had majored in elementary education. Four certification areas showed an increase of two or more percent in sample size. Agriculture, social studies, mathematics, and industrial arts (5.0 percent, 4.4 percent, 2.2 percent and 2.1 percent, respectively) had disproportionately greater numbers of persons employed in nonacademic fields.

Table 13. Distribution of Study Subjects Currently Employed in Non-academic Occupations by Teaching Major and Year.

Teaching Major	Number of Study Subjects				
	Study Year				
	1964-1965	1969-1970	1973-1974	Total	(percent)
Agriculture	8	21	8	37	(7.0)
Art	9	5	6	20	(3.7)
Business Education	5	9	8	22	(4.1)
Distributive Education	0	2	0	2	(0.4)
Driver Education and Safety	0	0	3	3	(0.6)
Elementary Education	5	34	45	84	(15.5)
English	3	20	12	35	(6.5)
Guidance and Counseling	0	1	0	1	(0.2)
Home Economics	5	17	22	44	(8.1)
Journalism	0	1	1	2	(0.4)
Foreign Language	1	12	10	23	(4.2)
Mathematics	14	15	12	41	(7.6)
Music	3	3	9	15	(2.8)
Physical Education	2	13	27	42	(7.7)
Psychology	0	2	3	5	(0.9)
Natural Sciences	7	17	8	32	(5.9)
Social Studies	7	30	22	61	(11.3)
Special Education	0	0	1	1	(0.2)
Speech	6	7	6	19	(3.5)
Librarian/Media Specialist	2	2	0	4	(0.7)
Industrial Arts	5	13	9	27	(5.0)
Nursery Kindergarten	1	0	1	2	(0.4)
Other	1	3	1	5	(0.9)
No major listed	3	6	3	14	(2.6)
Total	87	233	217	537	(100.0)

Section 4 - Factors Influencing Selection of Nonacademic Employment

Upon completion of a teacher education program, graduates are interested primarily in securing academic employment (Table 14). Of all forms of employment, teaching positions in Iowa were the most highly sought, with 42.4 percent of the respondents indicating an Iowa teaching position was of primary importance to them. Another 9.0 percent of the respondents indicated their primary objective was to secure a teaching position outside Iowa. At the time of graduation, one out of every four graduates had made the decision not to seek a teaching position while 14.2 percent of the graduates had made geographical location of primary importance in their job search. One out of every ten graduates elected not to seek employment at the time of graduation. This group is composed primarily of persons entering graduate school, the military, or homemaking.

The desire of teacher education graduates to obtain a position in teaching is further supported by Table 15. Of the total number of respondents, only 120 elected not to inquire about teaching positions, while 174 respondents did not inquire about non-teaching positions. A large number of the respondents, however inquired about both teaching and non-teaching positions. While 23.2 percent of the respondents made more than ten inquiries about teaching, only about one-third that many respondents (7.6 percent) made more than ten inquiries about non-teaching positions.

Although more job inquiries were made about teaching positions than about non-teaching positions, the number of non-teaching job offers was

Table 14. Factors of Primary Importance in Seeking First Employment After Graduation as Expressed by Subjects Currently Employed in Nonacademic Occupations.

Factor of Primary Importance	Number of Times Indicated as Factor of Primary Importance	Percent of Total
Securing a teaching position in Iowa	227	42.4
Securing a teaching position outside Iowa	48	9.0
Geographical location of primary importance with no preference for teaching or non-teaching position	76	14.2
Securing non-teaching position	130	24.3
No immediate employment	54	10.1
Total	535	100.0

much greater than the number of teaching job offers (Table 16). The fact that a large number of respondents applied for both teaching and non-teaching positions is evidenced here also in that many respondents received job offers in both teaching and non-teaching positions; however, the number of persons receiving single and multiple non-teaching job offers is far greater than the number of persons receiving comparable teaching job offers.

Important differences between the three study years exist in the number of inquiries made and job offers received. Graduates of the most recent study year, 1973-1974, made significantly more inquiries about teaching and non-teaching positions than did graduates from either the 1964-1965 or 1969-1970 study years (Tables 17 and 18). This larger

Table 15. Comparison of Number of Inquiries Made About Teaching and Non-Teaching Positions by Persons Seeking Their First Position After Graduation.

Number of Inquiries Made Per Respondent	Persons Inquiring About Teaching Positions		Persons Inquiring About Non-Teaching Positions	
	Number	Percent	Number	Percent
0	120	23.5	174	34.1
1 - 5	204	40.1	262	51.3
6 - 10	69	13.6	37	7.3
11 - 15	30	5.9	14	2.8
16 - 20	20	3.9	5	1.0
21 - 25	12	2.4	7	1.4
26 - 30	14	2.8	5	1.0
Over 30	41	8.2	7	1.4
Total	510	100.0	511	100.3

number of inquiries made by the 1973-1974 graduates resulted in significantly fewer teaching position offers and significantly more non-teaching position offers than were received by graduates of the two earlier study years (Tables 19 and 20).

An examination of the mean number of inquiries made for teaching and non-teaching positions further demonstrates the graduates' desire to obtain a teaching position first and a non-teaching position second. As teaching positions became less available, the mean number of teaching inquiries per graduate rose from 5.11 in 1964-1965 to 7.85 in 1969-1970 to 12.54 in 1973-1974. The mean number of non-teaching job inquiries

Table 16. Comparison of the Number of Teaching and Non-Teaching Job Offers By Persons Seeking Their First Position After Graduation.

Number of Job Offers Made Per Respondent	Respondents Receiving Teaching Job Offers		Respondents Receiving Non-Teaching Job Offers	
	Number	Percent	Number	Percent
0	263	52.7	160	31.9
1	136	27.3	199	39.6
2	69	13.8	88	17.5
3	23	4.6	31	6.2
4	6	1.2	9	1.8
5	1	0.2	9	1.8
Over 5	1	0.2	6	1.2
Total	499	100.0	502	100.0

Table 17. Mean Number of Teaching Positions Inquired About When Seeking First Position After Graduation.

Study Year	Mean Number of Inquiries
1964 - 1965	5.11
1969 - 1970	7.85
1973 - 1974	12.54[a]

[a] Difference between the 1973-1974 study year and 1964-1965 or 1969-1970 study years is statistically significant at the .05 level.

Table 18. Mean Number of Non-Teaching Positions Inquired About When Seeking First Position After Graduation.

Study Year	Mean Number of Inquiries
1964 - 1965	1.96
1969 - 1970	2.53
1973 - 1974	4.86[a]

[a]Difference between 1973-1974 study year and 1964-1965 or 1969-1970 study years is statistically significant at the .05 level.

Table 19. Mean Number of Teaching Offers Received When Seeking First Position After Graduation.

Study Year	Mean Number of Offers
1964 - 1965	1.38[a]
1969 - 1970	0.90[a]
1973 - 1974	0.38[a]

[a]Differences between all three study years are statistically significant at the .05 level.

Table 20. Mean Number of Non-Teaching Offers Received When Seeking First Position After Graduation.

Study Year	Mean Number of Offers
1964 - 1965	0.78
1969 - 1970	0.91
1973 - 1974	1.65[a]

[a]Difference between 1973-1974 study year and 1964-1965 or 1969-1970 study years is statistically significant at the .05 level.

per graduate during the corresponding years rose from 1.96 to 2.53 to 4.86. While the magnitude of the increase is somewhat comparable, it is quite obvious that teacher education graduates are making a greater effort to secure a teaching position than they are to secure a non-teaching position.

While the mean number of teaching job offers received per graduate declined from 1.38 during the 1964-1965 study year to 0.90 during the 1969-1970 study year, to 0.38 during the 1973-1974 study year, the mean number of non-teaching job offers per graduate rose during the corresponding years from 0.78 to 0.91, to 1.65.

Graduates who have been employed by more than one employer since graduation sought out nonacademic employment to a much greater degree than did persons applying for their first position after completing the teacher education program (Table 21). Whereas 51.4 percent of all persons seeking their first position primarily were interested in securing a teaching position, only 17.0 percent of the persons who have held more

Table 21. Factors of Primary Importance in Seeking Current Employment As Expressed by Subjects Who Have Previously Held Full-Time Employment Since Graduation.

Factor of Primary Importance	Number of Times Indicated as Primary Factor	Percent of Total
Securing a teaching position in Iowa	38	12.4
Securing a teaching position outside Iowa	14	4.6
Geographical location of primary importance with no preference for teaching or non-teaching position	56	18.3
Securing non-teaching position	198	64.7
Total	306	100.0

than one position primarily sought teaching positions when looking for their current position.

The fact that persons who have had two or more employers since completing the teacher education program primarily sought non-teaching positions for their current employment is further supported by data in Table 22. Sixty-four percent of the respondents elected not to seek a teaching position, while only 12.8 percent of the respondents elected not to seek a non-teaching position. The number of non-teaching job offers in response to inquiries made is far greater than the corresponding number of teaching job offers (Table 23).

It should not be inferred that the 34 persons who did not receive a job offer are unemployed (Table 23). Rather, the interpretation should be that the inquiries they made did not result in their getting

Table 22. Comparison of Number of Inquiries Made About Teaching and Non-Teaching Positions by Persons Seeking Their Current Position Who Have Previously Held Full-Time Employment Since Graduation.

Number of Inquiries Made Per Respondent	Persons Inquiring About Teaching Positions		Persons Inquiring About Non-Teaching Positions	
	Number	Percent	Number	Percent
0	165	64.0	37	12.8
1 - 5	53	20.5	203	70.5
6 - 10	12	4.7	27	9.4
11 - 15	3	1.2	9	3.1
16 - 20	12	4.7	3	1.0
21 - 25	3	1.2	2	0.7
26 - 30	4	1.6	3	1.0
Over 30	6	2.3	4	1.4
Total	258	100.2	288	99.9

the job they currently hold. The initial contacts and inquiries made for these persons were made by such persons as friends and current or past employers.

Respondents indicated the degree of importance of 16 factors which influenced acceptance of their current employment. Factors affecting occupational choice are shown in Table 24.

The opportunity to work with people (48 percent), the opportunity to use special abilities (47 percent), and location (42 percent) were factors most often cited as highly important in determining acceptance

Table 23. Comparison of Number of Teaching and Non-Teaching Job Offers By Persons Seeking Their Current Employment Who Have Previously Held Full-Time Employment Since Graduation.

Number of Job Offers Made Per Respondent	Respondents Receiving Teaching Job Offers		Respondents Receiving Non-Teaching Job Offers	
	Number	Percent	Number	Percent
0	214	85.3	34	11.7
1	26	10.4	177	61.0
2	5	2.0	48	16.6
3	5	2.0	24	8.3
4	1	0.4	5	1.7
5	0	0.0	1	0.3
Over 5	0	0.0	1	0.3
Total	251	100.1	290	99.9

of current employment. Possibilities for creativity, originality, advancement, and the opportunity to help and serve others were evaluated as highly important by at least one-third of the respondents. Social status, prestige, and the opportunity to work with things rather than people were least likely to be viewed as highly important. Seventeen percent noted that the feeling that they were better prepared for their current position than for teaching was highly important in determining their decision to take their present job. An equal proportion (17 percent) believe dissatisfaction with prior educational experiences was very important in their choice of current employment. Combining "highly important" and "somewhat important" categories reveals opportunities to

Table 24. Factors Influencing Acceptance of Current Employment.

Factor	Respondent Evaluation of Factor Importance							
	Highly Unimportant		Somewhat Unimportant		Somewhat Important		Highly Important	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Opportunity to use special abilities or aptitudes	40	7.8	55	10.6	179	34.6	243	47.0
2. Opportunity to earn a large salary	87	16.7	108	20.7	197	37.9	128	24.6
3. Opportunity to be creative and original	74	14.2	114	21.9	160	30.8	171	32.9
4. Social status and prestige	154	29.6	155	29.8	178	34.2	32	6.1
5. Opportunity to work with people	39	7.5	60	11.5	168	32.4	251	48.4
6. Opportunity to work with things rather than people	259	50.2	174	33.7	63	12.2	19	3.6
7. Freedom from supervision by others	106	20.4	149	28.7	155	29.8	109	21.1
8. Greater opportunity for advancement	77	14.8	84	16.1	174	33.4	185	35.5
9. Opportunity to exercise leadership	59	11.3	105	20.2	200	38.6	154	29.7
10. Opportunity to help and serve others	60	11.6	84	16.2	174	33.6	199	38.4
11. Adventure	130	25.1	133	25.7	161	31.1	93	17.9
12. Opportunity to work with adults rather than children	141	27.3	137	26.6	136	26.4	101	19.6
13. Felt better prepared for current position than teaching	178	35.0	139	27.3	105	20.6	86	16.9
14. Location of the employer	81	15.5	74	14.2	149	28.6	216	41.5
15. Dissatisfaction with prior educational experiences	226	44.2	99	19.3	101	19.7	85	16.6
16. Retirement, health care and other benefits	178	34.4	107	20.7	136	26.3	95	18.4

use special abilities or aptitudes (82 percent), opportunity to work with people (80 percent), and location (71 percent) as the primary factors considered in decisions about job selection.

Occupations and Factors in Job Selection

Occupations were classified into four general groups: professional, clerical-sales, service, and manual. Considering the educational level of the sample, it is not surprising that the majority were in the first two categories, 38 percent (n = 196) and 39 percent (n = 201), respectively. Over 8 percent (n = 42) were in service occupations, while 15 percent (n = 75) were employed in manual labor.

The degree of importance attributed to seven of the factors varies by occupation (See Table 25). For example, professionals (64 percent) consider opportunities to use abilities or aptitudes as being more important than does any other occupational group. Of the remaining occupational groups, those involved in manual work were most likely to have taken use of abilities into account in selection of a position. Professionals were also significantly more likely to have considered opportunities for creativity and originality in choosing their current job. The importance of being able to work with people was highlighted by professionals and clerical and service employees, while manual workers emphasized working with things rather than people. Both professionals and manual workers applied the criteria of freedom from supervision in their decisions for employment. Professionals and service workers share an interest in the opportunity to exercise leadership on the job, but professionals, more than any other group, emphasize an opportunity to

Table 25. Factors Influencing Acceptance of Current Employment by Occupation.

Factor	Respondent Evaluation of Factor Importance by Occupational Group, Percent							
	Professional Response (n = 197)		Clerical-Sales Response (n = 204)		Service Response (n = 42)		Manual Response (n = 75)	
	Highly Important	Somewhat Important	Highly Important	Somewhat Important	Highly Important	Somewhat Important	Highly Important	Somewhat Important
1. Opportunity to use special abilities or aptitudes[a]	63.8	27.0	33.8	39.8	38.1	40.5	42.7	37.3
2. Opportunity to earn a large salary	22.3	39.1	24.0	35.3	31.0	50.0	29.7	35.1
3. Opportunity to be creative and original[a]	44.9	35.2	23.0	30.9	12.2	36.8	40.0	20.0
4. Social status and prestige...	6.1	36.5	3.9	34.2	9.5	26.2	5.3	33.3
5. Opportunity to work with people...[a]	54.6	29.6	51.5	33.3	42.9	38.1	24.7	35.6
6. Opportunity to work with things rather than people[a]	6.1	6.1	0.5	11.4	2.4	23.8	12.3	24.7
7. Freedom from supervision by others[b]	18.8	37.6	19.7	27.1	14.3	28.6	35.1	17.6
8. Greater opportunity for advancement	37.1	35.0	36.0	33.5	28.2	35.7	36.0	28.0
9. Opportunity to exercise leadership[b]	34.2	41.3	22.7	37.4	42.9	38.1	29.7	35.1
10. Opportunity to help and serve others[a]	50.0	28.1	34.7	37.6	31.0	47.6	20.3	31.1
11. Adventure	18.9	32.7	13.9	28.2	31.0	35.7	20.3	31.1
12. Opportunity to work with adults rather than children	24.2	23.2	20.8	28.7	14.3	26.2	8.1	27.0
13. Felt better prepared for current position than for teaching	19.0	25.1	14.8	17.3	12.2	14.6	19.2	19.2
14. Location of the employer[a]	39.8	23.3	50.5	28.4	23.8	40.5	33.3	28.0
15. Dissatisfaction with prior educational experiences	14.8	20.7	20.6	19.1	12.2	12.2	16.0	22.7
16. Retirement, health care, and other benefits	12.8	30.6	19.4	26.9	33.3	16.7	23.0	20.3

[a] Chi square value significant at .001.

[b] Chi square value significant at .01,

[c] Chi square value significant at .05.

help and serve others as a factor in accepting employment. When seeking work, clerical workers were more likely to have assigned importance to job location.

Sex of Respondent and Factors Influencing Job Selection

Analysis of the importance of factors in job selection shows a number of differences by sex (See Table 26). As a whole, the differences encompass both intrinsic and extrinsic rewards of work. For example, the use of abilities or special aptitudes is more likely to be viewed as unimportant by women, while men emphasize the importance of salary. Men, more frequently than women, consider social status and prestige in evaluation of positions. Perhaps this difference reflects the assumption that status and prestige accrue to women by virtue of their husband's occupation. The opportunity to work with things rather than people assumes significantly greater importance for men than women. Men and women do not differ in their evaluation of the importance of helping and serving others, but men are somewhat more likely to want to work with adults. In turn, opportunities for advancement, leadership, and fringe benefits are sought more freqnently by men, while location is significantly more important for women. At the same time, dissatisfaction with prior education experiences is less important to women.

In summary, on 10 of the 16 factors which may contribute to the decision to accept employment, there are significant differences between men and women. Thus, examination of specific items suggests substantial sex role differences in career orientations.

Table 26. Factors Influencing Acceptance of Current Employment by Sex.

Factor	Respondent Evaluation of Factor Performance			
	Male Response, percent (n = 229)		Female Response, percent (n = 302)	
	Highly Important	Somewhat Important	Highly Important	Somewhat Important
1. Opportunity to use special abilities or aptitudes[c]	49.8	37.0	44.6	32.9
2. Opportunity to earn a large salary[a]	33.0	40.1	18.2	36.0
3. Opportunity to be creative and original	38.2	30.7	29.0	31.0
4. Social Status and Prestige[c]	9.2	36.4	3.8	32.4
5. Opportunity to work with people	43.8	34.5	51.9	30.9
6. Opportunity to work with things rather than people[a]	4.9	17.7	2.8	8.0
7. Freedom from supervision by others	24.7	28.2	17.9	31.3
8. Greater opportunity for advancement[c]	45.0	31.0	27.9	35.5
9. Opportunity to exercise leadership[c]	37.4	41.0	23.4	36.9
10. Opportunity to help and serve others	35.5	32.0	41.0	34.7
11. Adventure	20.3	30.0	16.3	32.2
12. Opportunity to work with adults rather than children[c]	16.3	32.2	22.3	22.0
13. Felt better prepared for current position than teaching	15.6	20.1	18.0	20.8
14. Location of the employer[a]	25.4	33.8	54.3	24.4
15. Dissatisfaction with prior educational experiences[c]	17.3	24.3	16.2	16.2
16. Retirement, health care, and other benefits[b]	23.3	30.4	14.6	22.9

[a] Chi square value significant at .001

[b] Chi square value significant at .01

[c] Chi square value significant at .05

Section 5 - Teacher Education Experiences as They Relate To Nonacademic Employment

This section investigates the relationship between skills and competencies obtained in the teacher education program and the usefulness of these skills and competencies to persons employed in nonacademic occupations.

Perception of Experiences Necessary to Qualify for Current Position

Teacher education graduates currently employed in nonacademic occupations do not perceive their teacher education experiences as experiences which were necessary to obtain their current position (Table 27).

Table 27. Experience Necessary to Qualify for Current Nonacademic Positions as Perceived by Teacher Education Graduates.

Area of Experience	Number	Respondent Evaluation of Experience Importance, percent					
		Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	Did Not Have	Total Percent
Major subject field	520	20.8	31.9	13.7	25.2	8.5	100.1
Minor subject field	517	8.3	21.5	17.6	30.2	22.4	100.0
Teacher education	522	7.7	26.6	22.8	35.8	7.1	100.0
General education	523	14.5	38.6	22.2	20.1	4.6	100.0
World of work prior to completing teacher education program	522	25.5	27.6	18.6	20.5	7.9	100.1
World of work after completing teacher education program	522	35.6	24.1	12.6	15.5	12.1	99.9

Respondents were asked to indicate the degree of importance of experiences in their major subject field (e.g., history or physics), minor subject field (e.g., history or physics), teacher education (including

student teaching), general education, work experiences prior to completing the teacher education program, and work experiences after completing the teacher education program in preparing them for their current position. A respondent could rank all areas as being of equal importance or unimportance in preparing them for their current position.

Respondents perceive their work experiences after completing the teacher education program as being of most importance in preparing them for their current position. Ranked second in importance were work experiences gained prior to completing the teacher education program, followed closely by experiences in general education and experiences in the graduate's major subject area. Experiences in the teacher education program ranked a distant fifth, and experiences in the minor subject area were considered of least importance.

Responses in the teacher education category present somewhat of a paradox. First, it must be remembered that 29.1 percent of all persons responding to these six questions held academic employment prior to entering their current occupation. In a sense, teacher education experiences were of importance to these persons in preparing them for their current positions since teacher certification gave them entry into employment which then, in turn, prepared them for their current position. Secondly, a large number of respondents indicated either that the teacher education program was a highly unimportant factor (35.8 percent) in preparing them for their current position, or that they did not have the program (7.1 percent). Since all persons completing the questionnaire are known to have completed a teacher education program, a plausible explanation may be that the professional education experiences in many

teacher education programs are so tightly woven into the fabric of the subject matter area that the student is unable to perceive the existence of two programs.

Usefulness of Teacher Education Experiences in Current Position

Those experiences which generally deal directly with teaching another person knowledge, concepts, or skills rank higher in usefulness for persons employed in nonacademic employment than do those experiences which do not deal directly with such activities (Table 28).

Table 28. Usefulness of Teacher Education Experiences in Current Non-academic Employment.

Area of Experiences	Number	Respondent Evaluation of Each Experience Area, percent						
		Essential	Very Useful	Somewhat Useful	Not Useful	Did Not Have	Total Percent	Rank[a]
Educational psychology	518	5.2	15.6	39.8	36.1	3.3	100.0	2
Instructional media	519	6.2	16.2	32.2	38.3	7.1	100.0	4
Social foundations	518	1.4	4.4	23.6	61.6	9.1	100.1	6
Methods of teaching	520	6.2	16.3	32.5	41.9	3.1	100.0	3
Student teaching	519	8.5	17.1	31.6	39.3	3.5	100.0	1
Field work practicums, etc.	517	7.9	15.5	26.3	35.6	14.7	100.0	5

[a]Rank based on: essential = 4, very useful = 3, somewhat useful = 2, and not useful = 1.

Student teaching, as has been reported in numerous other surveys, ranks highest in perceived usefulness in terms of the respondents' current nonacademic employment. Educational psychology and methods of teaching are listed as a close second and third, respectively. Instructional media, a course usually dealing with the use and development of various kinds of instructional hardware and software, ranked fourth in usefulness. Fifth in usefulness was a collection of activities which included such things as field work, classroom observation, and practicums. Experiences in the social foundations of education were considered to be least useful when compared to the other choices provided the respondents.

If we compare the collective responses of "essential," "very useful," and "somewhat useful" to the response "not useful," we get an indication of how many persons perceive usefulness versus those who do not perceive usefulness in their teacher education experiences. Examined this way, we observe that in all areas except the social foundations of education, more persons perceive usefulness from the experience than perceive none. The ratio of the number of persons perceiving usefulness to the number of persons not perceiving usefulness is as follows: educational psychology, 1.7/1; student teaching, 1.6/1; instructional media, 1.4/1; field work, practicum, 1.4/1; methods of teaching, 1.3/1; and social foundations of education, 0.5/1.

Skills and Abilities Developed in the Teacher Education Program

Eight skills and abilities purportedly developed in the teacher education program were examined as to their importance for nonacademic

employment and the degree to which they were developed in each graduate. Skill in selecting and organizing materials, skill in technique of instruction, skill in group management, skill in developing work habits, and skill in developing interpersonal relationships along with ability to profit from suggestions for improvement, ability to evaluate own performance, and ability to evaluate the performance of others were the skills and abilities on this section of the questionnaire. Each respondent was asked to evaluate each skill or ability in terms of importance to his/her current nonacademic employment and to evaluate whether or not the skill or ability was developed adequately in the teacher education program.

All skills and abilities were judged by 50 percent or more of the respondents to be highly important to them in their current nonacademic position. In addition, over 55 percent of all respondents indicated that the skill or ability was developed adequately in the teacher education program.

The three areas considered to be of greatest importance all dealt with the development of personal skills. Ability to profit from suggestions for improvement (Table 29), ability to evaluate own performance (Table 30), and skill in developing work habits (Table 31) were each evaluated by 90 percent or more of the respondents as important to them in their current nonacademic positions.

The next area of greatest importance could be clustered under the rubric, working with others. In this category, skill in developing interpersonal relationships (Table 32) was selected by 87.2 percent of the respondents as being of importance to them in their current position. The ability to evaluate the performance of others (Table 33) and skill

Table 29. Importance of Ability to Profit from Suggestions for Improvement for Persons Employed in Nonacademic Occupations.

		Respondent Evaluation of Ability Importance, percent				
	Number	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	Total Percent
Ability adequately developed	354	37.8	29.8	1.8	1.4	70.8
Ability not adequately developed	146	12.2	13.8	2.6	0.6	29.2
Total	500	50.0	43.6	4.4	2.0	100.0

Table 30. Importance of Ability to Evaluate Own Performance for Persons Employed in Nonacademic Occupations.

		Respondent Evaluation of Ability Importance, percent				
	Number	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	Total Percent
Ability adequately developed	334	37.8	25.2	2.4	1.0	66.4
Ability not adequately developed	169	18.3	11.9	2.2	1.2	33.6
Total	503	56.1	37.2	4.6	2.2	100.0

Table 31. Importance of Skill in Developing Work Habits for Persons Employed in Nonacademic Occupations.

	Number	Importance of Skill, percent				Total Percent
		Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	
Skill adequately developed	292	33.9	19.8	2.4	2.8	58.9
Skill not adequately developed	203	24.0	12.7	2.8	1.4	40.9
Total	495	57.9	32.5	5.2	4.2	99.8

Table 32. Importance of Skill in Developing Interpersonal Relationships for Persons Employed in Nonacademic Occupations.

	Number	Importance of Skill, percent				Total Percent
		Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	
Skill adequately developed	285	32.7	19.0	3.6	2.2	57.5
Skill not adequately developed	211	21.0	14.5	5.2	1.8	42.5
Total	496	53.7	33.5	8.8	4.0	100.0

in group management (Table 34) were considered important by 74.4 percent and 67.3 percent of the respondents, respectively.

Table 33. Importance of Ability to Evaluate the Performance of Others For Persons Employed in Nonacademic Occupations.

		Importance of Ability, percent				
	Number	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	Total Percent
Ability adequately developed	358	31.0	23.4	10.0	7.2	71.6
Ability not adequately developed	142	12.2	7.8	5.0	3.4	28.4
Total	500	43.2	31.2	15.0	10.6	100.0

Table 34. Importance of Skill in Group Management for Persons Employed in Nonacademic Occupations.

		Importance of Skill, percent				
	Number	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	Total Percent
Skill adequately developed	266	15.2	20.6	8.6	8.8	53.2
Skill not adequately developed	233	17.8	13.6	5.8	9.4	46.6
Total	499	33.1	34.2	14.4	18.2	99.8

Judged as the areas of least importance were skill in selecting and organizing materials (Table 35) and skill in technique of instruction (Table 36). Skill in selecting and organizing materials was judged by 78.8 percent of the respondents to be of importance to them, while skill in technique of instruction was judged to be important by only 51.9 percent of the respondents. Both of these areas usually deal more with the selection and organization of materials, concepts, and ideas than they do with techniques to understand or to deal with oneself or others.

This section appears to indicate that skills and abilities commonly stressed in a teacher education program for the preparation of classroom teachers also are deemed to be of importance by persons employed in non-academic occupations. This would tend to support the thesis advocated by teacher educators, who view the teacher education program as being much broader than merely preparing classroom teachers, that skills or techniques necessary to understand or to deal with oneself or others are the same regardless of whether the setting is in a classroom or some other interpersonal context.

Respondents also evaluated the aspect of the teacher education program which was most useful in their current occupation (Table 37). Elements of the program, which are assessed as valuable in occupational life, are summarized in the seven categories shown in Table 37.

Overall, there is little concensus on any single aspect of the teacher education program which affects present job performance. As Table 37 shows, fewer than one third of the respondents agree on any of the seven characteristics.

Table 35. Importance of Skill in Selecting and Organizing Materials for Persons Employed in Nonacademic Occupations.

	Number	Importance of Skill, percent				Total Percent
		Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	
Skill adequately developed	365	32.4	24.4	8.2	8.0	73.0
Skill not adequately developed	135	14.4	7.6	2.4	2.6	27.0
Total	500	46.8	32.0	10.6	10.6	100.0

Table 36. Importance of Skill in Technique of Instruction for Persons Employed in Nonacademic Occupations.

	Number	Importance of Skill, percent				Total Percent
		Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	
Skill adequately developed	384	13.3	28.6	16.1	19.3	77.3
Skill not adequately developed	113	4.0	6.0	6.4	6.2	22.6
Total	497	17.3	34.6	22.5	25.5	99.9

Table 37. Program Aspects Most Useful in Current Occupation.

Program Characteristics or Skills Obtained	Number of Positive Responses	Percent
1. Interpersonal relations skills	70	19.3
2. Organization, planning and management skills	113	31.1
3. Courses in speciality area	25	6.9
4. Specific courses (primarily Psychology and Sociology)	40	11.0
5. Student teaching	19	5.2
6. Personal development	26	7.2
7. No useful aspects	70	19.3

Organizational, planning, and management skills as a part of the teacher education program are most frequently noted (31 percent) as being of help in current occupational tasks. Interpersonal relations skills form the second most important aspect (19 percent) of the training, as it is reflected in present job performance. But an equal proportion of respondents (19 percent) are not able to isolate any experience in the program which aids them in their current occupation. Specific courses (primarily those in psychology and sociology) were mentioned as being most helpful by 11 percent. In contrast to aspects of programs which are most useful in personal and civic life, the order of importance assigned to management-organizational and interpersonal relations skills is reversed in terms of their contribution to occupational performance.

When occupation is controlled, Table 38 shows that there is little difference in the proportion of respondents who evaluate the acquisition of interpersonal skills as important in their current occupation. But management-organization skills received more endorsement from those in professional and clerical occupations than from service and manual workers. In contrast, substantially greater percentages of service and manual employees (33 and 38 percent) were unable to identify any aspect of their teacher training experience which aids them in their current work, while those in professional and clerical jobs (12 and 18 percent) were much less likely to report that there is no congruence between educational programs and occupational activity.

Section 6 - Perceived Influence of the Teacher-Education Program on Personal and Civic Life

Respondents indicated the importance of the teacher education program for preparation in eight areas of personal and civic life (Table 39). Experiences in the teacher education program are most likely to contribute to development of the ability to relate to various types of people, the ability to speak well, social poise, and leadership skills. Compared with these areas, the educational program was less important in creating a sense of responsibility to participate in community and public affairs, in developing moral and ethical standards, and in preparation for family life.

In contrast to the sex differentials in factors important to job selection observed earlier, there is a high degree of congruence between

Table 38. Program Aspects or Skills Most Useful in Current Occupation by Occupational Group.

Program Aspects	Occupational Group Responses, percent			
	Professional (n = 197)	Clerical-Sales (n = 204)	Service (n = 42)	Manual (n = 75)
1. Interpersonal relations skills	17.6	20.9	20.8	19.1
2. Organization, planning and management skills	34.0	36.0	20.8	12.8
3. Courses in speciality area	8.5	4.3	8.3	8.5
4. Specific courses (primarily Psychology and Sociology)	13.1	10.8	8.3	6.4
5. Student teaching	8.5	2.2	8.3	2.1
6. Personal development	5.9	7.9	0.0	12.8
7. No useful aspects	12.4	18.0	33.3	38.3

men and women in their perceptions of the importance of teacher education experiences in personal and civic life. The experiences which respondents rated on level of importance are shown in Table 39. Responses to only one of these - "the importance of teacher education in developing a fund of knowledge useful in later life" - differ significantly by sex, with men more likely to believe the teacher education program was instrumental in developing a fund of useful knowledge.

The impact of teacher education programs on personal life, civic life, and occupation, as well as recommendations for change, were also considered using unstructured questions. Characteristics of the programs

Table 39. Importance of Teacher Education Experiences in Personal and Civic Life.

Educational Experience	Respondent Evaluation of Educational Experiences							
	Highly Important		Somewhat Important		Somewhat Unimportant		Highly Unimportant	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Developing an ability to get along with different types of people . . .	200	38.0	221	42.0	71	13.0	37	7.0
2. Developing social poise . . .	163	31.0	233	44.0	89	17.0	44	8.0
3. Developing a fund of knowledge useful in later life	155	29.0	245	46.0	92	17.0	36	7.0
4. Preparing for a satisfying family life . . .	77	15.0	165	32.0	97	36.0	16	18.0
5. Response to community and public affairs . . .	84	16.0	209	40.0	156	30.0	79	15.0
6. Developing moral capacities, ethical standards, and values . . .	81	15.0	193	37.0	156	30.0	96	18.0
7. Developing better speaking habits . . .	190	36.0	234	44.0	74	14.0	31	6.0
8. Developing leadership skills . . .	166	31.0	239	45.0	81	15.0	42	8.0

which have had the greatest impact on civic and personal activities are considered first. Respondents described the one aspect of their teacher education program they find especially useful in their personal and civic life. Table 40 shows that aspects of programs focusing on interpersonal relations frequently phrased as "working and getting along with people" have the most influence on subsequent personal and civic life. While almost 40 percent of the respondents cite benefits which may be categorized as interpersonal, the second largest category, although considerably smaller (15 percent), encompasses the effect of the programs

Table 40. Aspects of Teacher Education Program Useful in Personal and Civic Life.

Program Aspects	Number of Positive Respondents	Percent
1. Training in interpersonal relations	165	38.4
2. Training in organizational-planning-management skills	63	14.7
3. Student teaching	45	10.5
4. Personal development and identity	59	13.7
5. Ed. Psychology and psychological concepts courses	25	5.8
6. General education	33	7.7
7. No aspects of the program are useful	40	9.3

on organization and management skills. Contributions to personal development and clarification of identity are attributed to teacher education programs only slightly less often than organizational skills (14 percent). Ten percent found student teaching of value in their present personal and civic endeavors, but 9 percent report that no aspect of their training has any merit for their current activities. General education (8 percent) and educational psychology and psychology courses (6 percent) were cited as subject matter areas having importance to persons after completion of the program.

All four occupational groups identify aspects of programs which facilitate interpersonal relations as the most influential part of the program (Table 41). Although less frequently mentioned, professionals

Table 41. Aspects of Teacher Education Programs Useful in Personal and Civic Life by Occupational Group.

Program Aspects	Occupational Groups, percent			
	Professional (n = 197)	Clerical-Sales (n = 204)	Service (n = 42)	Manual (n = 25)
1. Training in interpersonal relations	32.5	43.5	42.9	37.7
2. Training in organizational-planning-management skills	14.8	15.1	17.9	11.5
3. Student teaching	13.0	7.0	17.9	9.8
4. Personal development and identity	9.5	16.3	10.7	19.7
5. Ed. Psychology and psychological concepts	5.3	6.4	7.1	4.9
6. General education	11.8	4.7	0.0	8.2
7. No aspects of the program are useful	13.0	7.0	3.6	8.2

and service employees have found organizational and management skills and student teaching useful in their present occupation. At the same time, professionals are also most likely to report that none of their training is of value in their occupation. Personal development, attributed to the teacher education program, assumes somewhat greater importance for clerical-sales employees and manual workers in their current work than organizational and management skills or student teaching.

Section 7 - Future Employment Ambitions

Respondents were asked to project future employment ambitions, indicating whether (1) they would continue employment in the same field, (2) seek employment in education, or (3) seek employment in a different field (Table 42). The sample seems to be stabilized in the area of occupational aspirations, for almost two-thirds (64 percent) plan to continue in the same field. Future employment in education is a goal for 23 percent, while 13 percent hope to find work in a different field.

Table 42. Future Employment Aspirations.

Future Employment Preference	Number of Respondents	Percent
Continuing same field	335	64.7
Employment in education	118	22.8
Employment in different field	65	12.5
Total	518	100.0

Further analysis (Table 43) of employment ambitions by year of graduation shows there is a significant difference in future plans depending on time of graduation. For example, those with the intent to seek employment in education range from 5 percent of the 1964-1965 graduates, to 42 percent of the 1973-1974 graduates. In addition, respondents were asked if they would accept a full-time educational position if it were offered. Twenty percent would accept with no conditions, while 30 percent would accept a teaching position only if certain

criteria were met, such as geographical location or special area of interest (Table 44).

Table 43. Future Employment Aspirations by Year of Graduation.

Future Employment Preference	Respondents by Year of Graduation, percent		
	1964 - 1965 (n = 84)	1969 - 1970 (n = 227)	1973 - 1974 (n = 207)
Continue in same field	85.7	72.7	46.4
Employment in education	4.8	11.5	42.5
Employment in different field	9.5	15.9	11.1

$\chi^2 = 81.74$; $p > .001$

Table 44. Willingness to Accept a Full-Time Educational Position.

Willingness to Accept	Number of Graduates	Percent
Yes	104	19.8
Yes, with conditions	155	29.5
No	266	50.7
Total	525	100.0

Willingness to accept an available position in education is significantly associated with year of graduation (See Table 45). Although almost one-third would ask that certain conditions be met, recent graduates would be much more likely to accept a teaching position. While the data

Table 45. Willingness to Accept a Full-Time Educational Position by Year of Graduation.

Willingness to Accept	Respondents by Year of Graduation, percent		
	1964 - 1965 (n = 84)	1969 - 1970 (n = 227)	1973 - 1974 (n = 207)
Yes	4.7	13.5	32.7
Yes, with conditions	29.4	27.1	32.2
No	65.9	59.4	35.1

$\chi^2 = 50.48$; $p > .001$

are not longitudinal, they do suggest that desires to teach may diminish most in the first years beyond graduation. Table 45 shows that the preferences of 1964-1965 and 1969-1970 graduates are comparable and differ from those of recent graduates.

Current Occupation and Future Employment Ambitions

Professionals (74 percent) and manual laborers (69 percent) were most likely to indicate they plan to continue in the same occupation (Table 46). Clerical-sales and service workers were more likely to aspire to employment elsewhere and to have plans to seek a job in a different field. In response to a hypothetical situation in which they were offered a full-time teaching position, persons in professional and manual occupations were least likely to reject their present job, while those in service and clerical-sales work were most likely to aspire to employment elsewhere and to have plans to seek a job in a different field (Table 47). In response to a hypothetical situation in which they

were offered a full-time teaching position, persons in professional and manual occupations were most likely to reject the job, while those in service and clerical-sales work were least likely to reject a teaching position.

Table 46. Future Employment Aspirations by Occupational Group.

Preference	Respondents by Occupational Group, percent			
	Professional (n = 197)	Clerical-Sales (n = 207)	Service (n = 42)	Manual (n = 74)
Continue in same field	74.1	56.0	55.0	68.9
Employment in education	15.2	29.0	30.0	21.6
Employment in different field	10.7	15.0	15.0	9.5

Table 47. Willingness to Accept a Full-Time Educational Position by Occupational Group.

Willingness to Accept	Respondents by Occupational Group, percent			
	Professional (n = 197)	Clerical-Sales (n = 207)	Service (n = 42)	Manual (n = 74)
Yes	9.1	27.6	28.6	21.3
Yes, with conditions	33.1	27.6	33.3	22.7
No	57.6	44.8	38.1	56.0

$\chi^2 = 27.33$; $p > .001$

Conditions for Job Acceptance

One hundred-forty (140) respondents specified conditions under which they would accept teaching positions. Conditions were classified in four categories: characteristics of the position, location, availability of appropriate levels, and salary (Table 48).

Table 48. Conditions for Acceptance of a Teaching Position by Occupational Group.

Conditions for Acceptance	Respondents by Occupational Group, percent			
	Professional (n = 63)	Clerical-Sales (n = 53)	Service (n = 12)	Manual (n = 12)
Location	23.8	49.1	41.7	33.3
Position characteristics	30.2	20.8	16.7	16.7
Salary	20.6	18.9	0.0	50.0
Availability of job in specialty area	25.4	11.3	41.7	0.0

Location is the most frequently cited condition, followed by position characteristics, salary, and availability of specific grade levels.

Occupation and Conditions for Job Acceptance

Among persons who would accept a teaching position under specified conditions, those in clerical occupations were most likely to mention location as a condition for assuming a job in teaching (See Table 48). However, characteristics of a position are seemingly more important to professionals than to any other group. Although the sample size is

small, respondents in jobs requiring manual labor tend to mention salary more frequently than those in other occupations.

Section 8 - Recommendations for Program Change

To assess what changes in the teacher education program might improve the "fit" between programming and nonacademic job requirements, the following question was asked, "If you could change one specific aspect of the teacher education program so that it could be made helpful to you in your present occupation, what would that change be?" Recommendations were assigned to eight categories (Table 49).

Table 49. Recommendations for Program Change.

Recommendations	Number of Respondents	Percent
1. Increased practical experience and application	67	18.4
2. Increased and earlier teaching experience	53	14.6
3. Addition of subject matter areas	69	19.0
4. Program inapplicable to present job	52	14.3
5. Increased communication skills (verbal; written)	50	13.7
6. Increased experience in relating to others, particularly adults	16	4.4
7. Job and vocational counseling	23	6.3
8. No recommendations	34	9.3

One of the most frequent requests is for inclusion of specific subject matter areas (19 percent). For example, "More Psychology courses," "More Social Studies and Government," "More courses in Sociology." Categories 1 and 2, "Increased practical experience" and "Increased and earlier teaching experience" seem to overlap, but were analyzed separately, with the latter group containing all responses which specifically noted a need for increased and earlier teaching experience. If these two categories are combined, one-third of the respondents are shown to recommend increased field experiences. And this recommendation differs little by present occupational placement (Table 50); one-third of those persons in professional, clerical, and service positions and 21 percent of the manual workers endorse the need to incorporate more practical experience in the teacher education program.

The inapplicability of teacher education to the present occupation (category 4) and the need for increased communication skills (category 5) were each mentioned by 14 percent. Manual workers were least likely to recommend more emphasis on verbal and written skills (category 5). Although categories six and seven "Increased experience in relating to others, especially adults" and "Job and vocational counseling" contain a smaller proportion of total respondents than other groups (4 and 6 percent, respectively) they seem somewhat more significant in view of the focus on nonacademic employment. In contrast to a teaching position, nonacademic employment is more likely to involve the establishment of working relationships with adults. Representative recommendations classified in the "Job and vocational counseling" category include the

Table 50. Recommendations for Program Change by Occupational Group.

Recommendations	Respondents by Occupational Group, percent			
	Professional (n = 197)	Clerical-Sales (n = 207)	Service (n = 42)	Manual (n = 74)
1. Increased practical experience and application	19.1	18.5	11.1	20.0
2. Increased and earlier teaching experience	14.2	14.6	22.2	11.1
3. Addition of subject matter areas	23.4	15.2	22.2	15.6
4. Program inapplicable to present job	9.9	17.9	11.1	17.8
5. Increased communication skills (verbal; written)	18.4	11.9	14.8	4.4
6. Increased experience in relating to others, particularly adults	5.0	4.6	3.7	2.2
7. Job and vocational counseling	5.0	7.9	3.7	6.7
8. No recommendations	5.0	9.3	11.1	22.2

need to "Discuss other occupations open in fields of interest," "Courses on how to get a job," and "Change the idea that you can get a job."

Since the assumption of nonacademic employment suggests the graduate may have a job somewhat peripheral to the area of training, the need for vocational counseling may be more salient.

Section 9 - Current Gross Income of Respondents

Sixty-one percent of the respondents reported incomes under $10,000, with 20 percent under $5,000. Twenty-six percent are in the $10,000-$15,000 category, while 13 percent have incomes over $15,000 (Table 51). Not surprisingly, year of graduation is associated with amount of income, and the differences by year are substantial (Table 52). For example, 82 percent of the most recent graduates earn less than $10,000 compared with 54 percent of the 1969-1970 graduates and 21 percent of the 1964-1965 cohort.

Table 51. Income of Graduates.

Income Group	Number of Graduates	Percent
Under $5,000	103	20.2
$5,000 - $7,499	97	19.1
$7,500 - $9,999	111	21.8
$10,000 - $12,499	84	16.5
$12,500 - $14,499	48	9.4
$15,000 or over	66	13.0

Table 52. Income of Graduates by Year of Graduation.

Income Group	Graduates by Year of Graduation, percent		
	1964 - 1965 (n = 84)	1969 - 1970 (n = 227)	1973 - 1974 (n = 207)
Under $5,000	11.1	8.9	36.5
$5,000 - $7,499	9.9	18.7	23.2
$7,500 - $9,999	8.6	25.8	22.7
$10,000 - $12,499	12.3	20.0	14.3
$12,500 - $14,499	18.5	13.8	1.0
$15,000 or over	39.5	12.9	2.5

Chapter IV - SUMMARY

The majority of the teacher education graduates from Iowa State University, the University of Iowa, and the University of Northern Iowa, from the years of 1964-1965, 1969-1970, and 1973-1974, currently reside in the State of Iowa. Of those graduates not currently living in Iowa, the majority reside in states contiguous to Iowa.

Teacher education as an undergraduate major is still a common choice for women, with approximately a 3 to 1 ratio of women to men in the population of graduates surveyed for this study.

Over three-fourths of all the teacher education graduates from the three study years have taught full time or currently are teaching full time. There is variation by year of graduation in the percentage who have taught, with more recent graduates (61 percent) less likely to have held teaching jobs than graduates of five (81 percent) and ten (91 percent) years ago. However, one fourth did not want to teach at the time of graduation and one out of ten did not want to be employed. Today, approximately one out of every five graduates is employed full time in a nonacademic position. This percentage varies from about 14 percent of the 1964-1965 class of graduates, to approximately 24 percent of the 1973-1974 class of graduates. The sex distribution becomes more nearly equal among the nonacademically employed graduates, with a ratio of three women to two men. An extremely high unemployment rate exists for teacher education graduates of ten years ago, with approximately two of every

five graduates unemployed. It must be noted, however, that the majority of the unemployed graduates are unemployed by personal choice and currently are devoting their time to raising a family. In contrast to the high unemployment rate of graduates of 10 years ago, fewer than one of every five graduates from the 1973-1974 study year are unemployed.

Teacher education graduates from the three Iowa Regents Institutions are interested first in obtaining a teaching position, with nonacademic employment as a second choice. Preference for academic employment is contingent on the stage of an individual's career; for example, 51.4 percent of all persons seeking their first employment were primarily interested in securing a teaching position, but only 17 percent of those who had held more than one job since graduation sought teaching positions when looking for their current position. The majority of the graduates list the State of Iowa as their preferred location. Recent graduates are searching much more diligently for teaching positions than did graduates of 10 years ago; however, the number of nonacademic job offers received by each group of graduates is much greater than the number of academic job offers.

Sex role differences are evident in the reasons why teacher education graduates accept nonacademic employment. Women generally list location as the primary reason they accepted a nonacademic position, while men are more prone to list opportunities for leadership, achievement, and excellent fringe benefits. The majority of the graduates accepting nonacademic employment are in professional and clerical-sales occupations.

The employment ambitions of teacher education graduates working in nonacademic occupations are relatively stable, with approximately two-thirds

of the graduates indicating a desire to remain in their current field of employment. The desire to teach diminishes with time from 42 percent of the recent graduates to 5 percent of the graduates of ten years ago. Of those who indicated they would accept a teaching position, the majority would only accept the position if it were in a given geographical location.

Teacher education graduates find the special abilities and aptitudes developed in their subject matter majors to be of prime importance in qualifying for and succeeding in their nonacademic occupation.

Individuals with majors in agriculture, social science, mathematics, and industrial arts are proportionally over-represented in nonacademic employment, while persons in elementary education are under represented. Most graduates perceive their teacher education program to be of little importance in preparing them to qualify for a nonacademic position. They do, however, believe work experiences gained after completing the teacher education program, which is most often teaching, are of prime importance in preparing them to qualify for their current nonacademic employment. The majority of graduates perceive teacher education skills that have to do with teaching knowledge, concepts, and skills to be necessary for success in their current nonacademic occupations.

Although one-third of the graduates recommend more fieldwork in the program, the majority find the teacher education experience (student teaching, educational psychology, methods of teaching, instructional media, and practicums) to be useful in their current nonacademic occupation. Specifically, graduates report that the interpersonal skills developed in their teacher education courses are of great importance for success in

their personal and civic life. In addition, graduates find their proficiency in the use of interpersonal skills to be adequately developed in the teacher education program. Thus, although teacher education is not usually seen as a requisite for nonacademic employment, skills derived from the program are beneficial to job performance.

REFERENCES

1. American Association of Colleges for Teacher Education, AACTE Bulletin, Vol. XXVIII (2); 2-4, April 1975.

2. Graybeal, William S., "Status and Trends in Public School Teacher Supply and Demand," The Journal of Teacher Education, Vol. XXV(3), Fall 1974, pg. 206.

3. Palmer, John R., "Some Data Related to the Teacher Surplus and Some Interpretations," Unpublished manuscript, School of Education, University of Wisconsin, Madison, 1973.

4. Glass, Lynn W., and Keith, Pat M., "The Teacher Education Program - A Liberal Arts Option with a Vocational Choice," College Student Journal (in press November-December 1975).

5. Charters, W. W., Jr., "The Social Background of Teaching," in Handbook of Research on Teaching, N. L. Gage, Editor, Rand McNally, Chicago, 1963.

6. Havighurst, R. J., and Neugarten, Bernice L., Society and Education, Boston, Allyn & Bacon, 1957.

Appendix A

Career Profile Card

Dr. Lynn W. Glass
Research Institute for
Studies in Education
Fisher House
Iowa State University
Ames, Iowa 50010

Since I completed the teacher education program I have held the following full-time positions:

POSITION	DATES(BEGINNING-END)	EMPLOYER

I have (have had) teaching certificate(s) in the following states: _____

If your mailing address or name is incorrect, please show corrections in the upper left hand corner on the face of this card.

Signature _____

Appendix B

Questionnaire

Graduates from each university received questionnaires that were printed with the name of their respective alma maters.

FOLLOW-UP STUDY OF TEACHER EDUCATION GRADUATES AT

Please answer the following questions as accurately as possible.

I. SEEKING FIRST POSITION

1. At the time you completed teacher education requirements, how did you feel about a teaching position? (Check one)

My primary interest was:

_____(a) in securing a teaching position in Iowa

_____(b) in securing a teaching position outside of Iowa.

_____(c) in a certain location and I had no preference about a teaching or non-teaching position.

_____(d) in a non-teaching position. (Please specify area of interest.)
_____

_____(e) not immediate employment, but rather _____
_____

2. Number of teaching positions about which you inquired (sent letter of inquiry, called superintendent, etc.) . . . . . _____

3. Number of school districts that made you a definite offer . . . . . _____

4. Number of non-teaching positions about which you inquired (sent letter of inquiry, called employer, etc.) . . . . . _____

5. Number of non-teaching employers that made you a definite offer . . . . . _____

II. SEEKING CURRENT POSITION

If your current employer is the same as your first employer, please omit this section and go on to Section III.

1. At the time you sought your current position, how did you feel about a teaching position? (Check one)

   My primary interest was:

   _____(a) in securing a teaching position in Iowa.

   _____(b) in securing a teaching position outside of Iowa.

   _____(c) in a certain location and I had no preference about a teaching or non-teaching position.

   _____(d) in a non-teaching position. (Please specify area of interest.)
   _____

   _____(e) not immediate employment, but rather _____
   _____

2. Number of teaching positions about which you inquired (sent letter of inquiry, called superintendent, etc.) . . . . . _____

3. Number of school districts that made you a definite offer . . . . . _____

4. Number of non-teaching positions about which you inquired (sent letter of inquiry, called employer, etc.) . . . . . _____

5. Number of non-teaching employers that made you a definite offer . . . . . _____

III. FACTORS INFLUENCING ACCEPTANCE OF CURRENT EMPLOYMENT

Please indicate the importance of each of the following factors in determining your decision to accept employment with your current employer by circling the appropriate number after each item.

	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant
(a) Opportunity to use special abilities or aptitudes .	4	3	2	1
(b) Opportunity to earn a large salary	4	3	2	1
(c) Opportunity to be creative and original	4	3	2	1
(d) Social status and prestige	4	3	2	1
(e) Opportunity to work with people	4	3	2	1
(f) Opportunity to work with things rather than people .	4	3	2	1
(g) Freedom from supervision by others	4	3	2	1

	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant
(h) Greater opportunity for advancement	4	3	2	1
(i) Opportunity to exercise leadership	4	3	2	1
(j) Opportunity to help and serve others	4	3	2	1
(k) Adventure	4	3	2	1
(l) Opportunity to work with adults rather than children	4	3	2	1
(m) Felt better prepared for current position than teaching	4	3	2	1
(n) Location of the employer	4	3	2	1
(o) Dissatisfaction with prior educational experiences	4	3	2	1
(p) Retirement, health care, and other benefits	4	3	2	1

IV. EXPERIENCES NEEDED TO QUALIFY FOR CURRENT POSITION

Please indicate the importance of each of the following experiences in preparing you for your current position by circling the appropriate number after each item. Experiences include courses, seminars, workshops, field activities, assistantships, etc.

	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	Did Not Have
(a) Experience in my major subject area (e.g., history, physics)	4	3	2	1	0
(b) Experiences in my minor subject area (e.g., history, physics)	4	3	2	1	0
(c) Experiences in teacher education (including student teaching)	4	3	2	1	0
(d) Experiences in general education	4	3	2	1	0
(e) Work experiences gained prior to completing the teacher education program	4	3	2	1	0
(f) Work experiences gained after completing the teacher education program	4	3	2	1	0

V. TEACHER EDUCATION EXPERIENCES USEFUL FOR CURRENT POSITION

Please indicate the usefulness of each of the following experiences in your current position by circling the appropriate number after each item. Experiences include courses seminars, workshops, field activities, assistantships, etc.

	Essential	Very Useful	Somewhat Useful	Not Useful	Did Not Have
(a) Experiences in Educational Psychology	4	3	2	1	0
(b) Experiences in Instructional Media	4	3	2	1	0
(c) Experiences in Social Foundations of Education .	4	3	2	1	0
(d) Experiences in Teaching Methods	4	3	2	1	0
(e) Student Teaching	4	3	2	1	0
(f) Field Work, Observation, Practicum (Other than student teaching)	4	3	2	1	0

VI. IMPORTANCE OF TEACHER EDUCATION EXPERIENCES IN PERSONAL AND CIVIC LIFE

Please indicate the importance of your teacher education experiences in preparing you for each of the following by circling the appropriate number after each item.

	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant
(a) Developing an ability to get along with different types of people	4	3	2	1
(b) Developing social poise	4	3	2	1
(c) Developing a fund of knowledge useful in later life	4	3	2	1
(d) Preparing for a satisfying family life	4	3	2	1
(e) Developing a sense of responsibility to participate in community and public affairs . . .	4	3	2	1
(f) Developing moral capacities, ethical standards, and values	4	3	2	1
(g) Developing better speaking habits	4	3	2	1
(h) Developing leadership skills	4	3	2	1

VII. SKILLS AND COMPETENCIES

We are interested in determining which of the following skills and competencies are essential in your current position and whether they were or were not developed in your teacher education program.

IN COLUMN A, please indicate the importance of the skill or competency in your current position.

IN COLUMN B, please indicate whether your teacher education program adequately provided for each.

	COLUMN A				COLUMN B	
					Was Provision Adequate?	
	Highly Important	Somewhat Important	Somewhat Unimportant	Highly Unimportant	yes	no
(a) Skill in selecting and organizing materials	4	3	2	1	1	0
(b) Skill in technique of instruction . .	4	3	2	1	1	0
(c) Skill in group management	4	3	2	1	1	0
(d) Skill in developing work habits . . .	4	3	2	1	1	0
(e) Skill in developing interpersonal relationships	4	3	2	1	1	0
(f) Ability to profit from suggestions for improvement	4	3	2	1	1	0
(g) Ability to evaluate own performance .	4	3	2	1	1	0
(h) Ability to evaluate the performance of others	4	3	2	1	1	0

VIII. FUTURE EMPLOYMENT AMBITIONS

1. Please indicate your future employment ambitions by checking one of the following:

   _____ Continue employment in same field.

   _____ Seek employment in education.

   _____ Seek employment in a different field.

2. Right now, if you were offered a full-time educational position for which you are certified, would you accept it?

   _____ Yes

   _____ Yes, under these conditions _____

   _____ No

IX. STRENGTHS AND WEAKNESSES

What one aspect of your teacher education program do you find especially useful in your personal and civic life today?

What one aspect of your teacher education program do you find especially useful in your occupation today?

If you could change one specific aspect of the teacher education program so that it could be made helpful to you in your present occupation, what would that change be?

X. GROSS INCOME

What was your 1974 gross income from your full-time position?

_____ Under $5,000	_____ $12,500 - $14,999
_____ $5,000 - $7,499	_____ $15,000 - $19,999
_____ $7,500 - $9,999	_____ $20,000 - $25,000
_____ $10,000 - $12,499	_____ Over $25,000

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE. PLEASE PLACE IT IN THE PROVIDED ENVELOPE AND RETURN TO IOWA STATE UNIVERSITY.

PLEASE HELP US UPDATE OUR RECORDS BY CORRECTING ANY ERRORS IN YOUR NAME OR ADDRESS.

Appendix C

Cover Letter for Career Profile Card

Graduates from each university received letters that were printed with the letterhead and signature of the Dean of Education from their respective alma maters.

College of Education
Office of the Dean

March 28, 1975

Dear Teacher Education Graduate:

The Colleges of Education at Iowa State University, the University of Iowa, and the University of Northern Iowa are sponsoring cooperatively through their Council of the Colleges of Education a follow-up study of selected persons who received a teacher education degree from one of the three state supported universities. The study is being conducted on behalf of the Council by the Research Institute for Studies in Education at Iowa State University.

One of the major objectives of the study is to determine career profiles for each of our graduates. To do this, we need to know the full-time jobs you have held since you received your degree and the dates you held each job. Be as descriptive as possible in identifying each job you have held. Please use labels such as: science teacher, assistant principal, farm owner-operator, chemical salesman, homemaker, student, unemployed, etc.

Your cooperation in filling out and returning the enclosed card will be very much appreciated by members of the study committee and especially by the faculty and administration of your alma mater.

Yours very truly,

Dean

Enc.

Appendix D

Follow-up Letter for Career Profile Card

Graduates from each university received letters that were printed with the letterhead and signature of the Dean of Education from their respective alma maters.

College of Education
Office of the Dean

Dear Teacher Education Graduate:

Recently members of a study committee from the Colleges of Education at Iowa State University, The University of Iowa, and the University of Northern Iowa contacted you regarding a follow-up study of selected persons who received a teacher education degree from one of the three state supported universities. We have not yet received your reply card; perhaps it has been lost in the mails or inadvertantly misplaced by you.

One of the major objectives of the study is to determine career profiles of our graduates. To do this, we need to know the full-time jobs you have held since you received your degree and the dates you held each job. Be as descriptive as possible in identifying each job you have held. Use labels such as: science teacher, assistant principal, farm owner-operator, chemical salesman, homemaker, student, unemployed, etc.

Your cooperation in filling out and returning the enclosed card will be very much appreciated by members of the study committee and especially by the faculty and administration of your alma mater.

Sincerely,

Dean

Enclosure

College of Education
Office of the Dean

Dear Teacher Education Graduate:

Thank you for returning your Career Profile Card. Your cooperation will enable us to better meet the needs of future graduates who choose to follow a career pattern similar to yours.

We are attempting to improve the teacher education program by conducting follow-up studies of our graduates. We have learned from the Career Profile Cards that a significant proportion of our graduates are currently employed in non-academic occupations. If we are to meet the future employment needs of all of our graduates, we will need to study graduates employed in non-academic occupations, as well as those employed in traditional academic occupations. Will you complete the enclosed questionnaire and help us learn more about the needs of the teacher education graduate currently employed in non-academic occupations?

The data you provide us on your returned questionnaire will be helpful to us in determining the nature of future courses, seminars, and field experiences in the Teacher Education Program.

Sincerely,

Dean

Enclosures: Preaddressed, stamped envelope and questionnaire

Appendix F

Follow-up Letter for Questionnaire

Graduates from each university received letters that were printed with the letterhead and signature of the Dean of Education from their respective alma maters.

College of Education
Office of the Dean

Dear Teacher Education Graduate:

Thank you for returning your Career Profile Card. Your cooperation will enable us to better meet the needs of future graduates who choose to follow a career pattern similar to yours. We have not yet received your completed questionnaire; perhaps it has been lost in the mails or inadvertantly misplaced by you.

We are attempting to improve the teacher education program by conducting follow-up studies of our graduates. We have learned from the Career Profile Cards that a significant proportion of our graduates are currently employed in non-academic occupations. If we are to meet the future employment needs of all of our graduates, we will need to study graduates employed in non-academic occupations, as well as those employed in traditional academic occupations. Will you complete the enclosed questionnaire and help us learn more about the needs of the teacher education graduate currently employed in non-academic occupations?

The data you provide us on your returned questionnaire will be helpful to us in determining the future nature of courses, seminars, and field experiences in the Teacher Education Program.

Sincerely,

Dean

Enclosures: Preaddressed, stamped envelope and questionnaire

Appendix G

Occupational Categories

OCCUPATIONAL CATEGORIES

I. Professional

Occupations in architecture and engineering
Occupations in mathematics and physical sciences
Occupations in life sciences
Occupations in social sciences
Occupations in medicine and health
Occupations in education
Occupations in museum, library, and archival sciences
Occupations in law and jurisprudence
Occupations in religion and theology
Occupations in writing
Occupations in art
Occupations in entertainment and recreation
Occupations in administrative specializations
Occupations in educational publishing, counseling, etc. outside the traditional school
Managers and officials, n.e.c.
Miscellaneous professional, technical, and managerial occupations

II. Clerical and Sales Occupations

Stenography, typing, filing, and related occupations
Computing and account-recording occupations
Material and production recording occupations
Information and message distribution occupations
Information and message distribution occupations
Miscellaneous clerical occupations
Salesmen, services
Banking and loan agency personnel
Salesmen and salespersons, commodities
Merchandising occupations, except salesmen

III. Service Occupations

Domestic service occupations
Food and beverage preparation and service occupations
Lodging and related service occupations
Amusement and recreation service occupations
Miscellaneous personal service occupations
Apparel and furnishings service occupations
Protective service occupations
Building and related service occupations
Military personnel

IV. Farming, Fishery, Forestry, and Related Occupations

Farming occupations
Miscellaneous farming and related occupations
Fishery and related occupations
Agricultural service occupations

V. Processing Occupations

Occupations in processing of metal
Ore refining and foundry occupations
Occupations in processing of food, tobacco, and related products
Occupations in processing of chemicals, plastics, synthetics, rubber, paint, and related products
Occupations in processing of wood and wood products
Occupations in processing of stone, clay, glass, and related products
Processing occupations, n.e.c.

VI. Machine Trades Occupations

Metal machining occupations

VII. Bench Work Occupations

Occupations in fabrication, assembly, and repair of metal products, n.e.c.
Occupations in assembly and repair of electrical equipment
Occupations in fabrication and repair of products made from assorted materials
Painting, decorating, and related occupations
Occupations in fabrication and repair of plastics, synthetics, rubber, and related products
Occupations in fabrication and repair of wood products
Occupations in fabrication and repair of sand, stone, clay, and glass products
Occupations in fabrication and repair of textile, leather, and related products

VIII. Structural Work Occupations

Occupations in metal fabricating, n.e.c.
Construction occupations, n.e.c.

IX. Miscellaneous Occupations

Transportation occupations, n.e.c.
Packaging and materials handling occupations
Occupations in extraction of minerals
Occupations in production and distribution of utilities
Occupations in graphic art work
Homemaker
Student